

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number: 15-107

PROJECT INFORMATION

Project Title: Bagnal Guzzler Renovation

Region and Game Management Unit: Region 1, GMU 3C

Local Habitat Partnership Committee (LHPC):

- Show Low

Was the project presented to the LHPC?

YES[] NO[X]

Has this project been submitted in previous years? YES[] NO[X]

If Yes, was it funded? YES[] NO[] → **Funded HPC Project #(s):**

Project Type: Water Catchment Renovation

Brief Project Summary:

The project will rebuild Bagnal Guzzler, an existing US Forest Service wildlife guzzler, to current AGFD wildlife water catchment standards. This project will replace an old development and substantially increase the storage capacity to a volume that will accommodate the high elk use at this water development, eliminating costly water hauling liability. This guzzler gets hauled to two to three times more than any other water development in Unit 3C. Both the Forest Service and AGFD Development Branch have conducted site visits and are in agreement with this project.

Big Game Wildlife Species to Benefit (% benefit per species) : Elk 75%, Mule Deer 20%, Turkey 5%

Implementation Schedule (Month/Day/Year):

Project Start Date:

May 1, 2016

Project End Date:

August 31, 2016

Environmental Compliance:

NEPA Completed: Yes[X] No[] N/A[]

Projected Completion Date: Cat-Ex package prepared, waiting only on contracted arch clearance for final signature

State Historic Preservation Office - Archaeological Clearance:
(Provide Attachment)

Yes[X] No[] N/A[]

Projected Completion Date: Ongoing – will be contracted out, overseen by Joe Currie; Projected Completion Date November 2015

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: Paul Greer

Projected Completion Date: February 2016

PROJECT FUNDING

Special Big Game License Tag Funds Requested:

\$ 42,150

Cost Share or Matching Funds:

\$ 43,000

Total Project Costs:

\$ 85,150

PARTICIPANT INFORMATION

Applicant (please print):

Paul Greer

Address:

2878 E. White Mountain Blvd.

E-mail:

jgreer@azgfd.gov

Telephone: (928) 358-8905	Pinetop, AZ 85935	Date: August 27, 2015
AGFD Contact and Phone No. (If applicant is not AGFD personnel):		
Project has been coordinated with: USFS Black Mesa Ranger District and Joe Currie		

NEED STATEMENT – PROBLEM ANALYSIS:

The Bagnal Guzzler is a US Forest Service wildlife water development that collects rain and snowfall to provide water to wildlife in northcentral Unit 3C. Bagnal Guzzler has been identified by the Arizona Game and Fish Department (AGFD) as a critical wildlife water in Unit 3C. Although the Bagnal Guzzler is a Forest Service development, AGFD has provided all of the maintenance, water hauling and regular water level checks for the last 10 years in order to ensure this critical water is functional and provides year-round water to elk, deer and other wildlife that use the development. Bagnal Guzzler receives the heaviest use by elk of all the water developments in GMU 3C; however, the current storage capacity is only approximately 1,800 gallons. On dry years, Bagnal Guzzler will require more than 4,000 gallons of water hauling in order to keep elk from drinking the development dry. Much of this hauling has been done by wildlife managers using 325 gal. pickup truck water buffaloes or 500 gal. water trailers. Due to the location of the guzzler and the unmaintained roads that provide access to the Bagnal Guzzler, water hauling is manpower intensive and takes wildlife managers away from other critical job duties. Over the last 10 years, Bagnal Guzzler has had the greatest amount of water hauled of all the guzzlers and catchments in Unit 3C. Due to the grossly inadequate water storage capacity, frequent catchment checks are required during high use periods to ensure elk do not drink the guzzler dry (i.e. Bagnal has been checked as many as 4 times during the month of July). The costly water hauling and additional catchment checks during dry periods can be eliminated by increasing the water storage capacity of the guzzler to a sufficient size.

In addition to the need for increased storage, other components of the development such as the exclosure fence, apron and gutter would benefit from being replaced. Due to the high elk use at the guzzler, the existing 3-strand smooth wire exclosure fence, used to keep cattle out, is constantly in need of repair. The exclosure fence was originally constructed using trees as corner posts. As these trees have died and fallen, makeshift repairs of the fence corners have resulted in irregular corners and loose stretches of fence line that are not able to be sufficiently tightened. The current exclosure fence is also vulnerable to being breached by cattle which would quickly deplete the available water storage of the guzzler and require emergency water hauling. Due to the age of the Bagnal Guzzler, the apron and gutter have had to be repaired several times to keep the development functional and collection efficiency has decreased over the life of the development. Both the apron and gutter need to be replaced.

Personnel at Black Mesa Ranger District have been made aware of the need to rebuild Bagnal Guzzler. In 2013, at the request of AGFD, a site visit was conducted at the Bagnal Guzzler with Wildlife Staff Biologist David Seery. The Black Mesa Ranger District has prepared a Categorical Exclusion (Cat-Ex) package to comply with the environmental clearance needed for renovation of the guzzler. The only remaining need for the Cat-Ex package to be signed is an archaeological clearance. In order to meet this need, Joe Currie, with the AGFD Development Branch, has agreed to contract out the archaeological clearance work to be completed fall of 2015. The Black Mesa Ranger District staff has agreed to AGFD coordinating the contracted archaeological work in order to complete the necessary clearances to compete for special big game license tag funds in the 2015 HPC grant cycle.

PROJECT OBJECTIVES:

Redevelop an existing USFS wildlife guzzler (catchment) to increase efficiency and water storage of the development in order to provide reliable year-round water to wildlife in the northcentral portion of Unit 3C.

PROJECT DESCRIPTION AND STRATEGIES:

- Replace the existing steel tank / drinker (approx. 1,800 gal.) with six (6) 53" deep' x 8' wide x 13' long buried polyethylene storage tanks (2,500 gal. each / total capacity 15,000 gal.).
- Replace the existing metal apron and wood frame (28' x 68') with a 48' x 48' fenced R-panel apron and metal frame.
- Install elk exclusion fence around the perimeter of the apron to protect the apron from ungulate damage.
- Install a 44" deep x 5' wide x 8' long buried polyethylene walk-in drinker.
- Replace the existing smooth wire exclosure fence with a 200' x 200' heavy-duty pipe rail fence to facilitate safer fence crossings by wildlife and reduce annual fence maintenance.
- Eliminate costly water hauling to this water development by increasing the water storage capacity to 15,000 gal.
- Provide a relatively maintenance-free perennial water source for wildlife in critical elk habitat.

PROJECT LOCATION

Project Coordinates: Lat 34.39956 Long 110.37894 (datum WGS84)

T. 12N, R. 18E. Section 36; approximately 11 miles east of Heber/Overgaard

See attached map. Land ownership for this project is Forest Service.

- Project site is marked on attached maps with a red pin and labeled as BAGNAL.
- Nearly all of the dirt tanks located within 2 miles of Bagnal Guzzler are ephemeral and do not hold water during the driest period of the year.
- Two other Forest Service guzzlers are present within 2 miles of the Bagnal Guzzler. These guzzlers have also been identified as critical waters by AGFD and are monitored and hauled to by AGFD. However these guzzlers were also built with inadequate storage capacities of approximately 2,000 gallons. Of the guzzlers and catchments in Unit 3C, Bagnal Guzzler receives the heaviest use and requires the most water hauling.

LAND OWNERSHIP AT THE PROJECT SITE(S):

(If the project area is private property, please state specifically and provide the landowner's name)

- USDA Forest Service, Apache-Sitgreaves National Forest, Black Mesa Ranger District

IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
YES[] NO[] N/A[X]

HABITAT DESCRIPTION:

The Bagnal Guzzler is located on a prominent ridgeline of pinyon-juniper woodland with a prevalent component of gray oak, an evergreen oak species. This P-J and oak woodland provides hiding and thermal cover for elk that bed along the ridge. The leaves and young shoots of the evergreen oaks

provide a staple component in the diet of wintering elk in Unit 3C. The oaks also produce mast crops which provide forage to elk, deer, bears and wintering turkeys. To the east and west of the ridge are drainages that provide good forage in the form of blue gramma and other grass species. In 2002, the Rodeo-Chediski Fire burned habitat around the Bagnal Guzzler leaving the ridgeline the guzzler is located on largely unburned. The fire created open areas with increased forage production immediately adjacent to the unburned P/J woodland creating high quality elk and deer habitat in this area. Elevations in the project area range from 6,200 to 6,600 feet.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

Materials Needed For Catchment:

Quantity	Item	Price
6	53'x8'x13' polyethylene storage tanks	\$ 20,250
	Walk-in trough and gutters	\$ 6,000
	48'x48' apron and frame	\$ 6,100
	Pipe rail livestock fencing, elk apron fencing and ball valves	\$ 5,000
	Misc. Const. Materials (concrete, rubber mats, valve boxes, insulation, angle iron)	\$ 3,000
	PVC Plumbing	\$ 1,800

(\$3,375 per tank)

Total SBGLT Funds Requested = \$ 42,150

Cost Share or Matching Funds

Arizona Game & Fish:

Contract Labor

(demolish old guzzler and build new catchment) = \$ 40,000

Contract Archaeological Clearance = \$ 2,500

USDA Forest Service:

Environmental Compliance Work = \$ 500

Total Cost Share = \$ 43,000

Total Project Cost = \$ 85,150

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

David Seery, Wildlife Staff, Black Mesa Ranger District, USDA Forest Service – project compliance and land management agency approval

Joe Currie, Habitat Planning Program Manager, AGFD – project planning and implementation, archaeological compliance and clearance coordination with USFS

Paul Greer, Wildlife Manager Unit 3A/C, AGFD – project oversight, monitoring, maintenance and coordination with USFS

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[] N/A[X]

PROJECT MONITORING PLAN:

The Bagnal Guzzler and other water developments identified as critical waters in Unit 3C are checked regularly throughout the year. During the period from March through August, Bagnal Guzzler is checked at least monthly, water level measured, wildlife use noted and dry dates predicted based on most recent water use rates. This monitoring protocol will continue to be used after the Bagnal Guzzler is renovated. Project effectiveness, by renovating the old guzzler to a larger more efficient design, will be clearly shown by a comparison of monitoring data before and after project completion.

PROJECT MAINTENANCE:

AZGF will monitor and complete all maintenance at this wildlife water, including any repairs that should need to be addressed after the project has been completed.

PROJECT COMPLETION REPORT TO BE FILED BY:

Paul Greer / AZGF

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

See Attached

ATTACHMENTS:

(Please provide cultural clearance documentation from land management agency, e.g., FONSI, Inventory Standards, etc. Also attach any project pictures)

CULTURAL RESOURCE DOCUMENTATION:

AGFD Development Branch has contracted an archaeological clearance for the Bagnal Guzzler renovation to be completed late summer / early fall of 2015. The USFS Black Mesa Ranger District has agreed to this contract of the archaeological clearance for the Bagnal Guzzler Renovation and will produce the final Inventory Standards and Accounting (IS&A) upon receipt of contracted archaeological clearance report. A copy of the IS&A will be included in the AGFD Environmental Assessment Checklist.

ENVIRONMENTAL CLEARANCE (NEPA COMPLIANCE):

A Categorical Exclusion (Cat-Ex) package will satisfy the NEPA compliance (e.g. FONSI) for the Bagnal Guzzler Renovation. The Cat-Ex package has already been completed by David Seery, District Wildlife Staff, at the Black Mesa Ranger District, and needs only the IS&A for final signature by the Black Mesa District Ranger.

PHOTOS

See Attached

PROJECT MAPS

See Attached

PROJECT SCHEMATIC DRAWING, PROPOSED

See Attached

ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET

PROJECT TITLE: BAGNAL GUZZLER RENOVATION

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**
YES
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
Joe Currie: July 31, 2015 and August 18, 2015; Ed Jahrke: August 27, 2015
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
☐2-4 ☐4-6 ☐6-8 ☐8-10 ☐10-12 ☐12-14 ☐14-16 ☒ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**
YES☒ (please complete #5 below) NO☐ (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**
Name of water source: XIL Forest Service Guzzler
Type of water source (catchment, spring, dirt tank): Catchment (1,800 gal storage capacity)
Ownership of water source: Forest Service
Distance in miles from project: 1 mile
- 6) **Is the target wildlife species a result of transplant efforts?** YES☐ NO☒
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
None
- 8) **Please provide the following information about access to the proposed site:**
Type of access (mark one): ☒2x4 vehicles ☐4x4 only ☐foot only**
**If foot access only: Distance in miles: _____ Approximate hiking time: _____
NA
-- Does access to this site require crossing private or tribal lands? YES☐ NO☒

-- Please describe any restrictions to public access:
None
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
See Attached Schematic Drawing
- 10) **Was a site visit completed?** Yes☒ No☐
If Yes, please list personnel that attended and date.
David Seery (USFS) August 27, 2013
Joe Currie and Tobbie McMillan August 18, 2015

Bagnal Guzzler - GMU 3C







